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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,974	03/31/2004	Christopher A. Huey	886-455	5910

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EXAMINER	
NGUYEN, KHAI N	

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/813,974	HUEY, CHRISTOPHER A.	
	Examiner	Art Unit	
	KHAI N. NGUYEN	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on **March 13, 2009** has been entered. Claims **1**, **21**, and **39** have been emended. No claims have been canceled. No claims have been added. Claims 1-42 are still pending in this application, with claims **1**, **21**, and **39** being independent.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

Claim 21 is rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 is drawn toward a "system", but the amended language in this claim appear to be applied for a method claim (i.e., "**A system for routing - - -, said method comprising the steps of: - - -**"), and there in no steps features related to a method in this claim. Therefore, it cannot be concluded with a complete assurance that claim 21 is a method or a system claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. Claims 1-5, 7-13, 16-23, 25-31and 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al. (U.S. Patent Number 6,385,312 hereinafter

"Schaffer") in view of Sonesh et al. (U.S. Patent Number 6,046,762 hereinafter "Sonesh").

Noted that claim 21 is interpreted as a system claim in this office action.

Regarding claims 1 and 39, Schaffer teaches a method for routing a directory assistance call (Fig. 2 Routing Network) from a wireless communications device to a directory assistance call center (column 11 lines 8-11, i.e., caller location based routing for use with mobile phone "wireless"), comprising:

receiving the call (Fig. 27, 110 CALLING, col. 38 lines 25-26, Figs. 28A-28B) , having an associated communication device identifier (Fig. 28A, step 114 Information Packet: Calling Phone Number and Dialed Number), at a first call center (Fig. 27, Fig. 30, col. 38 lines 49-51), the call being routed to the first call center based on said communications device identifier (Fig. 2, Fig. 27, 111 Switch, 150a Service Location, 1130 Interactive Voice Response Unit (IVRU), col. 38 lines 49-67 through col. 39 lines 1-4, i.e. call being routed to call center based on Automatic Number Identification (ANI));

determining the geographic vicinity of the wireless communications device (column 11 lines 8-11, i.e., caller location based routing for use with mobile phone "wireless") at said first call center (Fig. 27, 1136, 1138, col. 39 lines 33-40, i.e., Bellcore Vertical &Horizontal Coordinate file and Local Exchange Routing Guide (LERG), and Figs. 39A-B, state 1452, col. 51 lines 27-30. i.e., latitude and longitude); and

routing the call to a second call center if that second call center is closer to the geographic vicinity of the wireless communications device (column 11 lines 8-11, i.e., caller location based routing for use with mobile phone "wireless") than the first call center (Fig. 27, 150a-150b, col. 39 lines 1-4, and col. 52 lines 2-6).

However, Shaffer does not specifically disclose the first call center handling all calls regardless of the location of the wireless communication device and re-routing the call to a second call center. Although Shaffer teaches to route the call closer to the geographic vicinity of the wireless communications device and to use the instantaneous location of a caller's mobile telephone as an input to rout the call to the call center corresponding to the location of the caller's telephone (See Shaffer – Abstract, Fig. 2, column 8 lines 49-65, and column 41, lines 1-64).

In the same field of endeavor, Sonesh teaches the geographically distributed automatic call distribution systems connected to a plurality of voice and data networks (Sonesh - Fig. 5, Distributed Call Center, 501 Call Center A, 502 Call Center B, column 1, lines 10-13), and the first call center (Elsey – Fig. 5, Call Center 501) to handle all calls regardless of the location of the wireless communication device and re-routing the call to a second call center (Sonesh - Fig. 1, Call Center 501) (Sonesh – Fig. 5, 501 Call Center A, 502 Call Center B, 510 Data Network/Internet, 511 PSTN, column 10, lines 5-32). Sonesh further teaches that there is a need for a multimedia ACD system that ensures effective transparent spreading of agents over different geographical locations (See Sonesh – column 3, lines 50-58).

Therefore, it would have been obvious to a person of ordinary in the art at the time of the invention was made to incorporate the use of the first call center handling all calls regardless of the location of the wireless communication device and re-routing the call to a second call center, as taught by Sonesh, into the method and system of Shaffer in order to enhance the call routing of a call to a call center based on the geographic origin of the call. Since, Shaffer teaches to use the instantaneous location of a caller's mobile telephone as an input to rout the call to the call center corresponding to the location of the caller's mobile telephone, and thus modifying with the first call center to receive all calls and re-routing the call to the second call center is to apply a known technique to a known device ready for improvement to yield predictable results (see KSR – MPEP 2143). One having ordinary skill in the art would have been motivated to make such a modification to ensure effective transparent spreading of agents over different geographical locations, as per the teachings of Sonesh.

Regarding claims 2 and 22, Schaffer teaches a method and a system wherein the communications device identifier is automatic number identification (ANI) (Fig. 27,110, 111, col. 38 lines 28-29, and lines 49-51, Fig. 30, 110, 111, col. 40 – lines 66-67 through col. 41 lines 1-3, i.e. Automatic Number Identification (ANI)).

Regarding claim 3, Schaffer teaches a method further comprising receiving a signaling stream associated with the call, the signaling stream including at least a caller location identifier or an initiating switch locator for respectively identifying the

geographic vicinity of the caller or a switch through which the call is initially being routed (col. 10 lines 45-49, i.e. a caller spatial coordinate corresponding to an instantaneous location of a caller telephone).

Regarding claim 4, Schaffer teaches a method wherein the geographic vicinity of the communications device is determined by decoding the caller location identifier or the initiating switch locator (col. 51 lines 27-30, i.e. looks up latitude and longitude from caller telephone number; and col. 52 lines 49-65).

Regarding claims 5 and 23, Schaffer teaches a method and a system wherein the caller location identifier comprises a caller geodetic location information parameter (CGLIP) (col. 29 lines 1-3, i.e. latitude and longitude geocoded, and col. 29 lines 28-29).

Regarding claims 7, 9, 25, and 27, Schaffer teaches a method and a system wherein the initiating switch locator comprises a jurisdiction information parameter (JIP) and a call reference parameter (CRP) (Fig. 27, 111 Switch, col. 38 lines 63-67, i.e. communication protocols – ISDN and ISUP).

Regarding claims 8, 10, 26, and 28, Schaffer teaches a method and a system wherein the decoding comprises:

converting the JIP or CRP to a switch ID (Fig. 27, 111Switch, col. 39 lines 38-40, i.e. uses Local Exchange Routing Guide (LERG) for switch ID);

converting the switch ID to geographical coordinates (col. 39 lines 33-34, i.e. vertical-horizontal coordinate file); and

converting the geographical coordinates to latitude and longitude (Fig. 5, col. 23 lines 16-20, i.e., calculating site latitude and longitude).

Regarding claims 11 and 29, Schaffer teaches a method and a system wherein the initiating switch locator comprises a common language location identification (CLLI) code (col. 39 lines 33-40, i.e., CLLI codes are associated with V&H coordinate to calculate distance between two network locations, and also Local Exchange Routing Guide (LERG) stored CLLI).

Regarding claims 12 and 30, Schaffer teaches a method and a system wherein the decoding comprises:

converting the CLLI code to geographical coordinates (col. 39 lines 33-34, i.e., vertical-horizontal coordinate file associated with CLLI codes, and col. 39 lines 38-40, i.e., also Local Exchange Routing Guide (LERG) stored CLLI); and

converting the geographical coordinates to latitude and longitude (Fig. 5, col. 23 lines 16-20, i.e., calculating site latitude and longitude).

Regarding claims 13 and 31, Schaffer teaches a method and a system wherein the signaling stream is formatted in accordance with an SS7 protocol (col. 16 lines 30-32, i.e., SS7 TCAP message).

Regarding claims 16-18, and 34-36, Schaffer teaches a method and a system wherein the second call center is within the same state as that of the communications device (Fig. 35, 1220, col. 52 lines 2-6, i.e. "within service area"); and the second call center is within the same LATA as that of the communications device (Fig. 27, 111, 150a, col. 38 lines 25-27, and col. 39 lines 1-4, i.e. LEC and service location); and the second call center is within the same time zone as that of the communications device (col. 40 lines 10-20).

Regarding claims 19, and 37, Schaffer teaches a method and a system wherein there is a plurality of call centers closer to the geographic vicinity of the communications device than the first call center, and the second call center is the one call center out of the plurality of call centers that is closest to the geographic vicinity of the communications device (Fig. 22, 109 Service Locations File, col. 40 lines 9-10, lines 14-16, and lines 19-20).

Regarding claims 20, and 38, Schaffer teaches a method and a system further comprising routing the call to a third call center based on the expected wait time at the second call center (Fig. 1E, 152, 154 and 144 – col. 19 lines 6-11, i.e. exception handling when location is "busy").

Regarding claim 21, Schaffer teaches a system (Fig. 2 Routing Network, Fig. 27, Fig. 30) for routing a call from a wireless communications device (Fig. 27, 110, Fig. 30, 110) to a directory assistance call center (Fig. 27, 1000, Fig. 30, 1000 Call Center, column 11 lines 8-11, i.e., caller location based routing for use with mobile phone "wireless"), comprising:

a switch (Fig. 27, 111, Fig. 30, 111) for routing a call, having an associated communication device identifier, to a first directory assistance call center (Fig. 27, 1000, 1130 Network Terminating Point Interface Box to Call Center 1000, Fig. 30, 1000, 1130) based on said communication device identifier (Fig. 27, col. 38 lines 49-51, i.e., ANI is "communication device identifier" and call being routed to call center based on Automatic Number Identification, Fig. 28, col.40 lines 63-67 through col. 41 lines 1-3);

an interface for receiving at said first directory assistance call center a signaling stream associated with the call (Fig. 27, 1130, Fig. 30, 1130 Network Terminating Point Interface), the signaling stream including at least said communications device identifier and a caller location identifier or an initiating switch locator (Fig. 27, 111, Fig. 30, 111 Network Switch), the caller location identifier identifying the geographic vicinity of the caller, and the initiating switch locator identifying the geographic vicinity of the switch through which the call is initially being routed (Fig. 27, Fig. 30, col. 10 lines 45-49, i.e., caller spatial coordinate, col. 38 lines 28-29, col. 40 lines 66-67 through col. 41 lines 1-3, i.e. ANI);

a database at said directory assistance call center for relating the caller location identifier or initiating switch locator to the geographic vicinity of the caller or initiating

switch, respectively (Fig. 27, 1134-1140, Fig. 30, 1134-1140, i.e. database server, NPA-NXX split file, phone database, and location table, col. 44 lines 30-61); and

a processor (Fig. 27, 1150, Fig. 30, 1150 Routing Processor) for retrieving the geographic vicinity of the caller or initiating switch, for determining a second directory assistance call center closer to the geographic vicinity of the caller location or initiating switch location, and for routing the call to that second call center (Fig. 27, Fig. 30, 1150, 1010, 1214 and 1216, i.e. routing processor, phone number latitude/longitude table, service area file, col. 42 lines 30-40).

However, Shaffer does not specifically disclose the first call center handling all calls regardless of the location of the wireless communication device and re-routing the call to a second call center. Although Shaffer teaches to route the call closer to the geographic vicinity of the wireless communications device and to use the instantaneous location of a caller's mobile telephone as an input to rout the call to the call center corresponding to the location of the caller's telephone (See Shaffer – Abstract, Fig. 2, column 8 lines 49-65, and column 41, lines 1-64).

In the same field of endeavor, Sonesh teaches the geographically distributed automatic call distribution systems connected to a plurality of voice and data networks (Sonesh - Fig. 5, Distributed Call Center, 501 Call Center A, 502 Call Center B, column 1, lines 10-13), and the first call center (Elsey – Fig. 5, Call Center 501) to handle all calls regardless of the location of the wireless communication device and re-routing the call to a second call center (Sonesh - Fig. 1, Call Center 501) (Sonesh – Fig. 5, 501 Call

Center A, 502 Call Center B, 510 Data Network/Internet, 511 PSTN, column 10, lines 5-32). Sonesh further teaches that there is a need for a multimedia ACD system that ensures effective transparent spreading of agents over different geographical locations (See Sonesh – column 3, lines 50-58).

Therefore, it would have been obvious to a person of ordinary in the art at the time of the invention was made to incorporate the use of the first call center handling all calls regardless of the location of the wireless communication device and re-routing the call to a second call center, as taught by Sonesh, into the method and system of Shaffer in order to enhance the call routing of a call to a call center based on the geographic origin of the call. Since, Shaffer teaches to use the instantaneous location of a caller's mobile telephone as an input to rout the call to the call center corresponding to the location of the caller's mobile telephone, and thus modifying with the first call center to receive all calls and re-routing the call to the second call center is to apply a known technique to a known device ready for improvement to yield predictable results (see KSR – MPEP 2143). One having ordinary skill in the art would have been motivated to make such a modification to ensure effective transparent spreading of agents over different geographical locations, as per the teachings of Sonesh.

Regarding claims 40-42, Schaffer teaches the method wherein: the at least one operator (Fig. 27, 1146 OPERATOR) comprises a human (Fig. 27, 38 lines 25-26, col. 39 lines 51-52, i.e., caller will be connected to an operator, and col. 8 lines 66-67 through col. 9 lines 1--3. i.e., operator is a "live operator"); the at least one operator

comprises at least one processor (Fig. 27, 1150 ROUTING PROCESSOR, col. 39 lines 57-63); and wherein said processor comprises at least one software application capable of VR (voice response) (Fig. 27, 1130 Interactive Voice Response Unit (IVRU), col. 38 lines 49-63, wherein IVRU such as AT&T Conversant System reads "processor and software capable of VR").

Claim Rejections - 35 USC § 103

4. Claims 6 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer and Sonesh as applied to claims 5 and 23 above, and in view of Hurst (U.S. Pub. No. 2003/0087647 A1).

Regarding claims 6 and 24, Shaffer and Elsey disclose everything claimed as applied above (see claims 5 and 23). However, Shaffer does not specifically disclose the additional WGS format, which can be used to convert the location information in the WGS84 format to latitude and longitude.

In the same field of endeavor, Hurst teaches a location calculation software translates the caller ID to a geographical coordinate such as WGS84 (Hurst – U.S. Pub. 2003/0087647 A1 - paragraph [0037]). The advantage of Hurst is location data on a large number of mobile devices can be obtained in real time, and without additional burden on the network (Hurst – U.S. Pub. 2003/0087647 A1 - paragraph [0141]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide Shaffer with the converting the location information in WGS format to latitude and longitude.

5. Claims 14-15, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer and Sonesh as applied to claims 3 and 21 above, and in view of Pogossiants et al. (U.S. Pub. 2001/0028649 A1 hereinafter "Pogossiants").

Regarding claims 14-15 and 32-33, Schaffer and Sonesh disclose everything claimed as applied above (see claims 3 and 21). However, Schaffer and Sonesh might not specifically disclose their invention in detail about the call center can convert traditional voice data (PSTN – PCM format) to IP format (Voice-over-Internet Protocol (VoIP)) and the appropriate IP signaling protocols (i.e. H.323 and Session Initiation Protocol (SIP), and these protocols are well known in the art). Although, Sonesh teaches to convert PSTN audio into a compressed network packet format and transmitting the packets via data network/Internet (See Sonesh – Fig. 5, column 8, lines 1-9), and Shaffer has described in the detail the computer-interface applications (Shaffer – col. 6 lines 23-67), and Computer Telephony Integration (CTI) (Shaffer – col. 38, section IX).

In the same field of endeavor, Pogossiants discloses a system comprises of formatting the content of the call to a VoIP protocol (Pogossiants – Fig. 3, paragraph [0052] lines 1-13) and supporting H.323 and SIP protocols (Pogossiants – paragraph

[0015]). The advantage of Pogossiants' system is the combining of a telephony network and a data-packet network (Pogossiants – paragraph [0026]).

Therefore, it would have been obvious to person of ordinary skill in the art at the time the invention was made to provide Shaffer and Sonesh with the detail of VoIP protocol and the related signaling protocols H.323 and SIP, as taught by Pogossiants, in order to enhance Schaffer's computer-interface applications.

Response to Arguments

6. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI N. NGUYEN whose telephone number is (571)270-3141. The examiner can normally be reached on Monday - Thursday 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. N. N./
Examiner, Art Unit 2614
06/01/2009

/Rasha S AL-Aubaidi/
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